
Overview

This standard identifies the competences you need to carry out condition monitoring of plant and equipment used in food and drink operations, in accordance with approved procedures. You will be able to select the appropriate monitoring equipment to use, based on the type of plant or equipment being monitored and the conditions you wish to check. You will be able to check that the equipment is in a suitable condition to use (such as undamaged, correctly calibrated, appropriate range) and set up the equipment ready for use. You will then be able to use this equipment to carry out diagnostic condition monitoring (fault diagnosis or prognosis) on a range of equipment such as mechanical, electrical, process controller, fluid power or integrated systems. Food and drink operations is a term used in this standard to cover the following sub sectors of Meat, Drinks, Confectionery, Fresh Produce, Bakery, Seafood and Dairy.

You must comply with organisational policy and procedures for the condition monitoring activities undertaken, and report any problems with the diagnostic equipment or monitoring activities that you cannot personally resolve, or that are outside your permitted authority, to the relevant people. You will be able to work with minimal supervision, taking personal responsibility for your own actions, and for the quality and accuracy of the work that you carry out.

Performance criteria

You must be able to:

1. work safely at all times, complying with health and safety, environmental and other relevant food and drink regulations, directives and guidelines
2. plan and communicate the condition monitoring activities so as to minimise disruption to normal working
3. set up, check and calibrate the equipment required for both the monitoring being carried out and in accordance with manufacturer's instructions
4. carry out the monitoring activities with the minimum disruption to normal activities in accordance with organisational procedures
5. review the monitoring outcomes and take actions in accordance with organisational procedures
6. complete documentations and results of the monitoring activities in accordance with organisational procedures

Knowledge and understanding

You need to know and understand:

1. the specific health and safety precautions to be applied during the monitoring procedure, and their effects on others
2. the food and drink related health and safety and environmental requirements of the area in which the monitoring activity is to take place, and the responsibility these requirements place on you not to compromise food safety
3. hazards associated with carrying out monitoring activities on plant and equipment (including electrical supplies, moving machinery, process controller interface, using damaged or badly maintained tools and equipment, not following laid-down procedures), and how to minimise these and reduce any risks
4. the requirements of the British Retail Consortium (BRC) guidelines and standards in relationship to the maintenance activities
5. the specific requirements of your customer/client specifications in relationship to the maintenance activities
6. your responsibilities in relationship to Hazard Analysis and Critical Control Points (HACCP), Threat Assessment and Critical Control Points (TACCP) and Vulnerability Assessment and Critical Control Points (VACCP) during the maintenance activities
7. the importance of wearing protective clothing and other appropriate safety equipment (PPE) during the monitoring activities
8. how to obtain and interpret drawings, charts, specifications, manufacturers' manuals, history/maintenance reports, symbols used on monitoring instrument documents, and other documents needed in the monitoring/maintenance process
9. the basic principles of how the plant or equipment to be monitored functions, its operating sequence, the working purpose of individual units/components and how they interact
10. the principles of the equipment's design features for safe operation in a food or drink environment such as minimising the chance of contaminants or foreign bodies in the final product
11. the basic principles of condition monitoring, and how it helps prevent equipment failure

12. the different types of monitoring component or sensor (including temperature, force, pressure, vibration, rotational, voltage, current), their fittings, and their application
13. the various monitoring systems, and the methods that can be employed to make test measurements for the purposes of machinery protection or predictive maintenance
14. methods of attaching monitoring components to different parts of the plant, equipment or system
15. the need to check that monitoring instruments are fit for purpose, undamaged, and have a suitable monitoring range and value
16. the importance of monitoring equipment calibration and authorisation procedures
17. the need to set up and operate condition monitoring equipment correctly
18. care and control procedures for condition monitoring equipment, including their safe/hygienic storage before use
19. the processes in place to segregate the tools and equipment used into high or low risk areas
20. the checks required to ensure that all tools, materials and components are all accountable before operating the equipment
21. the problems that can occur during the monitoring activity, and how they can be overcome
22. recording the results from conditioning monitoring, and the documentation to be used
23. control procedures for reporting the results from condition monitoring
24. the organisational procedure(s) to be adopted for the safe disposal of waste of all types of materials including any spoilt food or drink products
25. the extent of your own authority and to whom you should report if you have a problem that you cannot resolve

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Carry out condition monitoring of plant and equipment used within food and drink operations



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